

AMENDMENTS TO THE SPECIFICATION

Please change the Title:

FROM:

“CONTINUOUS CALIBRATION SYSTEM FOR A GALVANOMETER”

TO:

“CONTINUOUS POSITION CALIBRATION FOR SERVO CONTROLLED ROTARY SYSTEM”

Please amend the paragraph starting at line 27, page 14 as follows:

“In this embodiment, the two detectors 68 are mounted in a spaced apart relationship on a stationary stator 70, through which shaft 50 passes without contact. Remote laser light source 80 generates the light beam, which is transmitted via optical fibers 82 to emitters 66, which then generate uncollimated light directed towards the light detectors ~~88~~68. Rotor 62 blocks this light, inhibiting a calibration signal output from detectors 68, unless rotated by shaft and load motion to a calibration reference position as explained above.”

Please amend the paragraph starting at line 1, page 16 as follows:

“Yet other embodiments may use one slit to enable two different emitter/detector pairs. Other combinations are possible, too. However, for simplicity, it is preferable to have two sets of one slit related to one emitter/detector pair, so as to have each of two, single source, calibration output signals identified with a respective one of two ~~disereet~~discrete, angular calibration positions.”

Please amend the paragraph starting at line 24, page 17 as follows:

“Referring to Fig. 4, there is illustrated a block diagram depicting a two axis scanner system ~~100~~ using a dual axis electronics module 120 which outputs an analog reported position signal (PDOUT) to converter board 130, and two galvanometers 10X and 10Y configured in accordance with the embodiment of Fig. 2. Both galvanometers are interconnected to dual axis electronics module 120 by wires (X CMD OUT, X PD IN, Y CMD OUT, Y PD IN), to converter

board 130 by wires (X OPT REF IN, Y OPT REF IN), and to the external laser diode and controller block 140 by optical fibers (X Light Pipe, Y Light Pipe). System controller 150 receives X axis data and Y axis data and exchanges ~~control and status~~ control/status data with converter board 130, and gives position commands to dual axis electronics module 120. Laser ~~Diodes—diodes~~ and controllers block 140 supports the two galvanometers and shares control/status data with converter board 130 as described below.”

Please amend the paragraph starting at line 5, page 18 as follows:

“The galvanometers 10X and 10Y work as previously described. Whenever an optical reference point is encountered in either axis, the converter board 130 captures the value of the respective position detector amplifier output (PDOUT) and evaluates the captured data against established limits (X OPT REF IN, Y OPT REF IN). The data and the results of the evaluation, for each axis in the system, are output to the system controller 150.